

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Longshot Oil, LLC
Well Name/Number: Paugh 2-25
Location: NW NE Section 25 T4S R24E
County: Carbon, **MT;** **Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig, 1850' TD

Possible H₂S gas production: None anticipated.

In/near Class I air quality area: Yes, Class I air quality area, Crow Indian Reservation, about 2 miles to the southeast from this location.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using small rig to drill to 1850' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater or freshwater mud system and/or air.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral drainage to Wolf Creek, an ephemeral tributary to Cottonwood Creek, about 1/32 of a mile to the southwest from this location.

Water well contamination: No, closest water well is about 5/8 of a mile to the south from this location and is only 80' in depth. Surface hole will be drilled with freshwater and surface casing run and cemented from 150' to surface. Mainhole will be drilled with air and/or air/mist. If productive 7" production casing will be run and cemented to surface.

Porous/permeable soils: No, silty sandy clay soils.

Class I stream drainage: No Class I stream drainage.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 150' of surface casing cemented to surface adequate to protect freshwater zones. Also, air and/or fresh water mud systems to be used. 7" production casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated.

High erosion potential: No, small cut, up to 4.4' and small fill, up to 3.9', required.

Loss of soil productivity: No, location will be restored after drilling in nonproductive and if productive unused portion of the drillsite will be reclaimed.

Unusually large wellsite: No, 150'X160' location size required.

Damage to improvements: Slight, surface use is cultivated field.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Surface access will be over existing county roads, Pryor Road, Sheller Road and will utilize existing ranch access trails. About 250' of new access will be built into this location off an existing ranch trail. Cuttings will be buried in the earthen pits. Fluids will be allowed to evaporate. Pit will be backfilled when dry. No special concerns. Operator verbally requested topographic exception on October 8, 2010, after inspection topographic exception was granted, drainage to the southwest prohibits moving location west or southwest any closer..

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 1.25 miles to the southwest, 2 mile to the southeast and 2.125 miles to the south southeast from this location. The town of Edger about 7 miles to the east and the town of Pryor, about 8.5 miles to the east southeast of this location. Chief Plenty Coups Memorial State Park is about 7.5 miles to the east southeast from this location.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time: Small drilling rig/short 3 to 4 days drilling time

Mitigation:

☐ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: BOP required due to faulted geology of the area and no nearby drilling.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: Chief Plenty Coups Memorial State Park Grave about 7.5 miles to the east southeast of this location.

Creation of new access to wildlife habitat: No
Conflict with game range/refuge management: No
Threatened or endangered Species: Threatened or endangered species are the Canada Lynx, Black-Footed Ferret and Grizzly Bear. Candidate specie is the Greater Sage Grouse. Proposed specie is the Mountain Plover. Experimental nonessential specie is the Gray Wolf.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: _____

Comments: No concerns. Private cultivated surface lands.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: _____

Comments: No concerns. On private cultivated surface lands.

Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns.

Remarks or Special Concerns for this site

Well is a 1850' Tensleep Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected. Some short term surface impacts will occur, but will be mitigated in time.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: October 8, 2010

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC
website
(Name and Agency)
Water wells in Carbon County

(subject discussed)
October 4, 2010
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, Section 7 T6S R36E
(subject discussed)

October 4, 2010
(date)

If location was inspected before permit approval:

Inspection date: October 8, 2010

Inspector: Mr. Sasaki

Others present during inspection: Mr. Randy Seale